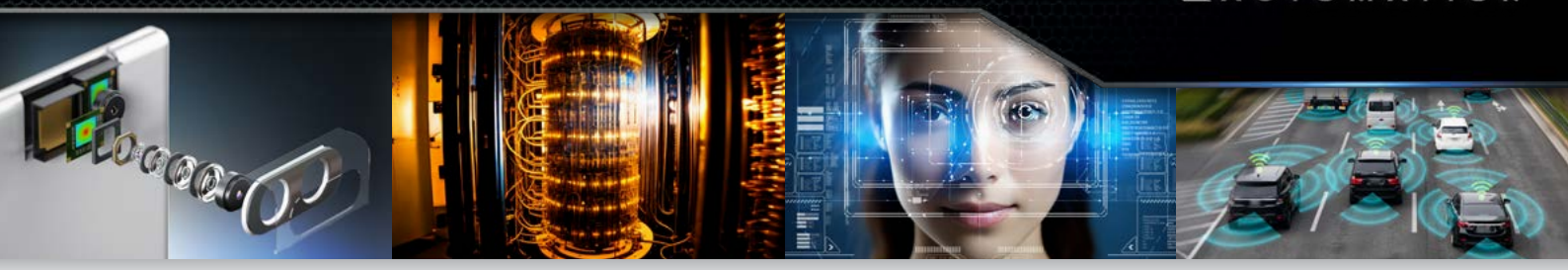
TRESKY AUTOMATION



Photonics Bonder

for Nano- and Optoelectronics

The **photonics bonder** is based on the T-7000 machine platform and is one of the most precise placement systems on the market due to its solid granite chassis. This precision is essential for use in the nanoelectronics and optoelectronics sectors.

Accelonix
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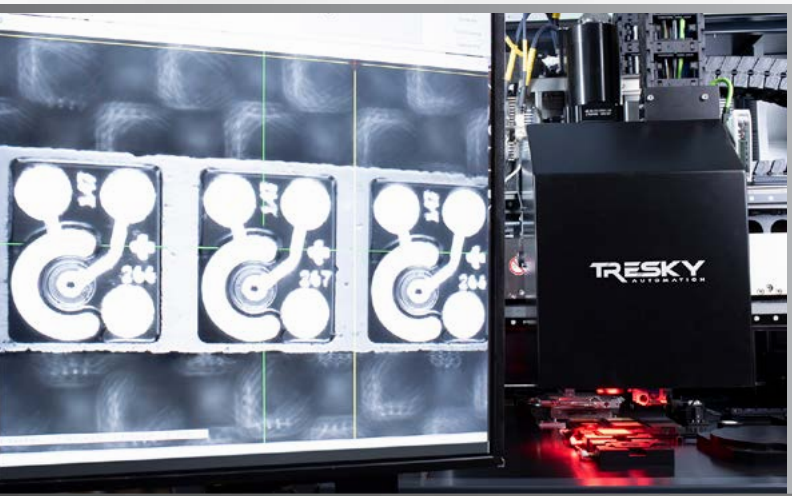
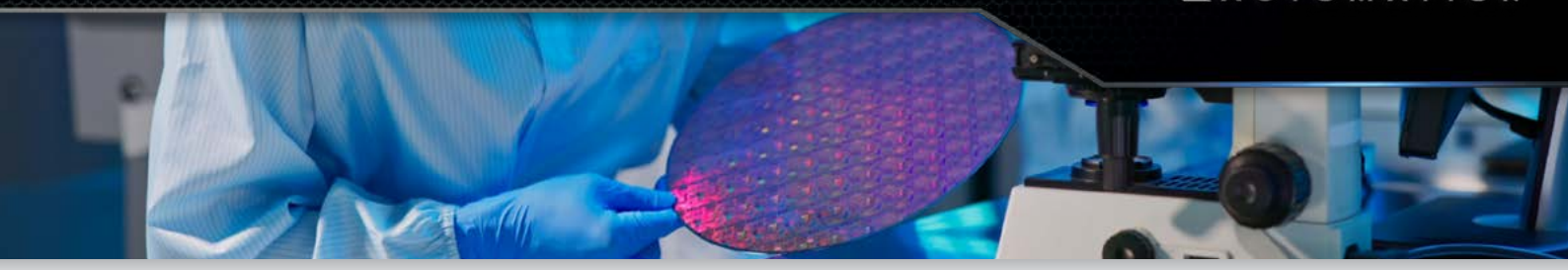


Photonics Bonder



We have developed the photonics bonder to successfully fulfil these requirements. The bonder offers sub-micron placement accuracy, a travel range of 500 x 700 mm and a bonding head with bonding forces from 0.01 N up to 100 N. On customer request, the bonding force range can be optionally increased to 300 N or 500 N. As is standard for us, we use granite as machine basis here, so that the highest possible precision can be guaranteed for optical components such as VCSELs, lasers, photodiodes, IR sensors or for the development of quantum technologies.

Added Value

High Precision

Due to the granite machine platform, the photonics bonder is a high-precision placement system.

Time to Market

The prototype-to-production approach enables the photonics bonder to be used both in manual prototype production and in series production.

Versatility

All processes of the assembly and connection technologies offered by Tresky can be integrated. E.g. eutectic soldering or UV bonding.

Bonding Forces

Optional high bonding forces also allow the photonics bonder to be used for hybrid bonding or high-precision sintering applications.

Modularity

The photonics bonder can be customized to meet specific customer requirements and expanded with different options. This means that the bonder can be used reliably in prototyping, product development and series production of nano- and optoelectronics.

Technical Data

Working Area with Wafer Table	500 mm x 700 mm
Possible Wafer Sizes	up to 8” (Ring & Frame)
Travelling Range Z-axis	100 mm
Tool Rotation Max.	up to 360°
Bond Force Range	0.01 N – up to 500 N *

Axis Speed	up to 2.0 m/sec
Positioning Accuracy	< 1.0 µm @ 3 sigma
Axis Resolution	XYZ: 0.001 µm, Theta: 0.005°
Min/Max. Chip Size	0.05 mm – 100 mm
Acceleration	up to 2.5 G

* Higher bond forces on request

more information

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